

Supply Chain Assessment

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Recent events continue to impact production processes and trade routes, causing significant supply chain slowdowns. A Finnish paper mill strike that started in the beginning of 2022 and lasted through April constrained shipping label production, while earlier this month an earthquake in Japan suspended microchip production across several manufacturing sites. Meanwhile, one of Shanghai's worst COVID outbreaks further extended its lockdown, prolonging suspension of factory and port operations. As Shanghai plans to resume production in June, expectations remain that a surge of exported cargo will clog U.S. West Coast ports, which have seen temporary relief with shipping rates stabilizing and backlogs easing due to port officials' continuing threat to impose a container dwell fee. Declining import volumes on the West Coast have shifted traffic to the Port of New York and New Jersey, the East Coast's busiest port, which reached the highest daily average of vessels this month since the start of the pandemic. The backup has raised concerns for shippers hoping to circumvent typical congestion on the West Coast, where current labor contract negotiations could intensify disruptions as peak shipping season approaches.

Findings

1. Product Availability

a. HVAC

Materials shortages and rising shipping costs are impacting the chiller and air handler markets. Many parts and equipment types including controls products, such as control boards, remain on backorder with lead times as long as 20 weeks, and wireless controls are largely unobtainable. Fan products have also experienced significant delays due to lack of motor availability, with air handler distributors quoting lead times of nine to 12 weeks. Other distributors report high residential stock but extended lead times upward of nine months for commercial equipment. In response to limited component supply, a major manufacturer has sought out secondary sources, purchased a year's worth of inventory, and expanded operations.

b. Water Heating

Shipping and component issues continue to impact product availability and challenge stocking for heat pump water heaters (HPWHs). One major manufacturer plans to ramp up production of commercial HPWH units, expected to bring lead times down from six months to two months.

Trade Ally Team Communications per Technology Domain

	This Issue	Volume 3 to Date
HVAC	22	167
Foodservice	15	97
Water Heating	15	93
Pumps	5	53
Lighting	17	67
Life Sciences	8	51
Total	82	528

TABLE 1.



c. Foodservice

Dealers report surging prices and varying lead times across equipment categories. Lead times range from two months to over one year depending on the brand, prompting many to quote comparable units while they wait as backorders significantly limit stock readily available to customers.

d. Lighting

Production of LED drivers and smart lighting components continues to be impacted by the global microchip shortage. Anticipating worsening supply chain challenges, distributors are preemptively stocking inventory to secure product. One distributor reports that multiple orders have shipping delays as long as six months, raising concerns about projects being postponed.

e. Life Sciences

A major manufacturer's increased production costs for ultra-low temperature freezers (ULTs) are expected to translate to price increases and reduced discounts in June.

2. Equipment Sales

a. HVAC and Water Heating

- i. Greater demand for higher efficiency products, bolstered by a growing commitment to the International Energy Agency (IEA) Net-Zero Emissions by 2050 pledge, is driving interest in heat pumps. Beginning in July 2023, Washington State's energy code will require electric heat pump installation for space and water heating in most new commercial buildings which will further drive sales. Distributors also credit strong heat pump sales to increased customer rebates.
- ii. Major HVAC manufacturers have announced price increases on commercial equipment ranging from 12% to 18%.

b. Lighting

- i. Effective June 30th, products that do not meet the Solid-State Lighting (SSL) Version 5.1 Technical Requirements will be delisted from the SSL Qualified Product List (QPL) by the DesignLights Consortium (DLC) and may be ineligible for program incentives. More than two thirds of the products on the QPL are currently listed as V5.0 products and significant shifts to V5.1 are expected in the upcoming months. While some distributors confirm that their inventory is already current with V5.1 standards, others are considering switching products to prepare for this transition.
- ii. Effective this June, a major manufacturer will implement an average price increase of 8% on selected products due to supply chain constraints and uncertainty.



Program Spotlight

This month, ENERGY STAR announced DTE Energy as Partner of the Year in the category of Energy Efficiency Program Delivery. The win highlights increased energy-efficient product adoption within DTE's service territory, with efforts supported by Energy Solutions as its commercial foodservice program implementer. For more information on this exciting announcement, please visit energystar.gov/about/content/dte_energy.

3. Service Providers / Contractors

a. HVAC

Contractors continue to find creative solutions to inventory delays to maintain project timelines, such as renting storage spaces to house inventory purchased ahead of time.

b. Lighting

While many manufacturers have been inhibited by shortages and delays, some have maintained strong inventories of products such as Type B and Type C tubular LED lamps (TLEDs) in preparation for upcoming school retrofit projects this summer. Significant price reductions for LED lighting products like TLEDs have contributed to strong demand for lighting retrofits in schools: return on investments under one year, augmented by program rebates, has attracted interest.

From the Field

From May 21st through 24th, Energy Solutions attended the **National Restaurant Association Show** and met with nationwide foodservice equipment manufacturers and representative groups. Our staff engaged with existing participants and developed new relationships to promote opportunities through our [Instant Rebates](#) programs.

On May 24th, Energy Solutions attended the **2022 DLC Summit: Lighting the Path to a Decarbonized Future**. The working meeting gathered utilities and energy efficiency program staff as well as lighting designers, manufacturers, representatives, and distributors to inform the next set of DLC Technical Requirements in Version 6.0. Discussions included greater focus on controls in V6.0 and how changing the frequency of efficacy updates and product delisting would impact product revision, test burden, and program administration.

About Energy Solutions

For more than 25 years Energy Solutions has provided cost-effective, market-driven solutions that deliver reliable, large-scale impacts. We implement more midstream and upstream programs in North America than any other company, which gives us access to valuable insights across technologies.

Our program success is fueled by a deep connection to the market. These market relationships have allowed us to closely monitor supply chain impacts to keep you informed.

To learn more about Energy Solutions' programs and services, contact Jeff Johnston at:

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Disclaimer: This report reflects our best estimate of market impacts, with the information available at this time. As the pandemic recedes, Energy Solutions will continue to provide valuable reporting on supply chain conditions. These updates will be versioned and dated to indicate at what time they apply.

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